

Genetic Tampering

In his column of Sept. 30 ("Unpredictable Variety Still Rules Human Reproduction"), Joshua Lederberg discussed recent developments in asexual genetic manipulation of laboratory animals, and raised the possibility that "such experiments might eventually be made to work in man, perhaps within a few years." Human reproduction might then become predictable and controllable. Lederberg concluded as follows:

It is an interesting exercise in social science fiction to contemplate the changes in human affairs that might come about from the generation of a few identical twins of existing personalities. Our reactions to such a fantasy will, of course, depend on just who is immortalized in this way -- but if sexual reproduction were less familiar, we might make the same comment about that.

I wish to take strong exception to the casual and cavalier tone with which Lederberg touched on the implications for human society of the scientific developments he so ably described. The possibility of genetic manipulation in man raises fundamental and enormous questions -- theological, moral, political. These questions must be carefully stated, the issues clearly articulated, and the alternative policies fully and soberly considered; "interesting exercises in social science fiction" are entirely inappropriate. It is unfortunate that Dr. Lederberg is either unaware of or unwilling to discuss the moral and political problems involved; it is shocking that he chooses to speak as if these questions are trivial, and as if they are reducible to our prejudices concerning the people who might be asexually propagated. Only naivete or hybris can account for such a jocular approach; neither is excusable, especially in a man of Dr. Lederberg's stature, especially in a newspaper column whose purpose is to make us wiser in matters of public policy vis-a-vis science.

I think at least the following questions should be discussed:

- (1) Are the arguments for attempting genetic manipulation in man compelling reasons? Our ability to alter human reproduction does not demonstrate that it is desirable to do so.
- (2) Is human will sufficient authority to advocate or to attempt to clone a man?
- (3) Should an independent scientist carry out such an experiment in the absence of public authorization? If not, which 'public' should decide -- scientists, Congress, the UN?
- (4) Who should control the genetic planning?
- (5) Is it not likely that, as with other technological advances, genetic technology will fall into evil hands, those of an Eichmann rather than those of a Schweitzer?
- (6) If the attempts to clone a man result in the 'production' of a defective 'product', who will or should care for 'it', and what rights will 'it' have? If the 'offspring' is sub-human, are we to consider it murder to destroy it?
- (7) What is the distinction between 'human' and 'sub-human'? Does not reflection on this question suggest that the programmed reproduction of man will, in fact, de-humanize him?

The development of science and technology, once begun, <sup>often</sup> proceeds without deliberated and considered decisions. Considerations of desirability rarely govern the transition from "it can be done" to "it has been done". Biologists today are under strong obligation to raise just such questions publicly so that we may deliberate before the new biomedical technology is an accomplished fact, a technology whose consequences will probably dwarf those which resulted from the development of the atomic bomb.

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